

REMARKS

Status of Claims:

New claims 51-55 are added. Thus, claims 1-55 are present for examination.

Claim Rejections:

Claims 1-4, 6, 8, 9, 12, 26, 28, 30, 31, 42, 49, and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Schulman et al. (U.S. Patent No. 6,164,284) (hereinafter Schulman).

Claims 5, 7, 10, 11, 13-25, 27, 29, 32-41, and 43-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulman.

With respect to claims 1-50, as amended, the rejections are respectfully traversed.

Independent claim 1, as amended, recites a method of sensing multiple parameters, the method comprising:

“implanting an implantable sensor at a single site in a patient, the implantable sensor having a housing within which are disposed a plurality of implantable sensing elements, each implantable sensing element of the plurality of implantable sensing elements operable through electrical communication with an external controller via an individual interconnect, each implantable sensing element of the plurality of implantable sensing elements allowing for sensing at least one of a respective biological parameter, a respective physiological parameter, and a respective analyte; and

reading an output from at least one implantable sensing element of the plurality of implantable sensing elements,

wherein a plurality of parameters are read from the implantable sensor at the single site, and

wherein the output read from said at least one implantable sensing element of the plurality of implantable sensing elements is a quantifiable value.”
(Emphasis Added).

A method including the above-quoted features has at least the advantages that an implantable sensor is implanted at a single site in a patient, where (i) the implantable sensor has a housing within which are disposed a plurality of implantable sensing elements; (ii) each implantable sensing element of the plurality of implantable sensing elements is operable through electrical communication with an external controller via an individual interconnect; and (iii) each implantable sensing element of the plurality of implantable sensing elements allows for sensing at least one of a respective biological parameter, a respective physiological parameter, and a respective analyte. (Specification; paragraphs [0030] and [0037]; Fig. 2, references 34, 32a-e, and 38).

Schulman neither discloses nor suggests a method including the above-quoted features including “implanting an implantable sensor at a single site in a patient, the implantable sensor having a housing within which are disposed a plurality of implantable sensing elements, each implantable sensing element of the plurality of implantable sensing elements operable through electrical communication with an external controller via an individual interconnect, each implantable sensing element of the plurality of implantable sensing elements allowing for sensing at least one of a respective biological parameter, a respective physiological parameter, and a respective analyte”.

The Examiner points to: (i) the sensor 100c of Schulman as disclosing an implantable sensor having a housing; and (ii) the sensor 188 and the magnet sensor 186 of Schulman as being a plurality of implantable sensing elements disposed within the housing of the sensor 100c. (Advisory Action; page 2) (Schulman; Figs. 2 and 3A). The Examiner stated that, “[i]t is noted that the claims [do] not state that both sensors are for sensing physiological parameters”. (Advisory Action; page 2) (Emphasis Added).

However, independent claim 1 has now been amended to recite the feature, “each implantable sensing element of the plurality of implantable sensing elements allowing for sensing at least one of a respective biological parameter, a respective physiological parameter, and a respective analyte”. (Emphasis Added).

The magnet sensor 186 in Fig. 3A of Schulman does not allow for sensing at least one of a biological parameter, a physiological parameter, and an analyte. Rather, as explained in col. 12, lines 36-43, of Schulman, the magnet sensor 186 is used to disable operation of the implanted device 100 in an emergency situation in response to a DC magnetic field. Thus, the magnet sensor 186 of Schulman cannot be considered as an implantable sensing element of the present claim 1.

As a consequence, Schulman neither discloses nor suggests the claimed feature of “implanting an implantable sensor at a single site in a patient, the implantable sensor having a housing within which are disposed a plurality of implantable sensing elements, each implantable sensing element of the plurality of implantable sensing elements operable through electrical communication with an external controller via an individual interconnect, each implantable sensing element of the plurality of implantable sensing elements allowing for sensing at least one of a respective biological parameter, a respective physiological parameter, and a respective analyte”. (Emphasis Added).

Therefore, independent claim 1, as amended, is neither disclosed nor suggested by the Schulman reference and, hence, is believed to be allowable.

Because they depend from independent claim 1, dependent claims 2-25 and 49 are believed to be allowable for at least the same reasons that independent claim 1 is believed to be allowable. With regard to dependent claims 5, 7, 10, 11, and 13-25, which were rejected under 35 U.S.C. 103, it is further noted that the Patent Office has not made out a *prima facie* case of obviousness under 35 U.S.C. 103.

Independent claim 26 recites a method with features similar to features of a method of independent claim 1 and, thus, is believed to be allowable for at least the same reasons that independent claim 1 is believed to be allowable. Because they depend from independent claim 26, dependent claims 27-41 and 50 are believed to be allowable for at least the same reasons that independent claim 26 is believed to be allowable. With regard to dependent claims 27, 29, and 32-41, which were rejected under 35 U.S.C. 103, it is further noted that the Patent Office has not made out a *prima facie* case of obviousness under 35 U.S.C. 103.

Independent claim 42, as amended, recites a method of sensing multiple parameters, the method comprising:

“implanting an implantable sensor at a single site in a patient, the implantable sensor having a housing within which are disposed a plurality of implantable sensing elements; and

reading an output from at least one implantable sensing element of the plurality of implantable sensing elements,

wherein each implantable sensing element of the plurality of implantable sensing elements each comprises a respective power supply,

wherein a plurality of parameters are read from the implantable sensor at the single site, and

wherein the output read from said at least one implantable sensing element of the plurality of implantable sensing elements is a quantifiable value.”

(Emphasis Added).

A method including the above-quoted features has at least the advantages that an implantable sensor is implanted at a single site in a patient, where (i) the implantable sensor has a housing within which are disposed a plurality of implantable sensing elements; and (ii) each

implantable sensing element of the plurality of implantable sensing elements each comprises a respective power supply. (Specification; paragraph [0032]).

Schulman neither discloses nor suggests a method including the above-quoted features including “implanting an implantable sensor at a single site in a patient, the implantable sensor having a housing within which are disposed a plurality of implantable sensing elements”, wherein “each implantable sensing element of the plurality of implantable sensing elements each comprises a respective power supply”.

The Examiner points to: (i) the sensor 100c of Schulman as disclosing an implantable sensor having a housing; (ii) the sensor 188 and the magnet sensor 186 of Schulman as being a plurality of implantable sensing elements disposed within the housing of the sensor 100c; and (iii) the battery 104 of Schulman as disclosing a power supply. (Advisory Action; page 2) (Schulman; Figs. 2 and 3A). The Examiner stated that, “Applicant did not claim that each of a plurality of implantable sensing elements each comprise a power supply.” (Advisory Action; page 2) (Emphasis Added).

However, independent claim 42 has now been amended to recite the feature, “each implantable sensing element of the plurality of implantable sensing elements each comprises a respective power supply”. (Emphasis Added).

The sensor 188 and the magnet sensor 186 of Schulman do not each comprise a respective power supply. (Schulman; Fig. 3A). Rather, as is illustrated in Fig. 3A of Schulman, there is only a single battery 104 in the implanted device that includes the sensor 188 and the magnet sensor 186. (Schulman; Fig. 3A).

As a consequence, Schulman neither discloses nor suggests the claimed feature, “wherein each implantable sensing element of the plurality of implantable sensing elements each comprises a respective power supply”. (Emphasis Added).

Therefore, independent claim 42, as amended, is neither disclosed nor suggested by the Schulman reference and, hence, is believed to be allowable.

Independent claim 43, as amended, recites a method with features similar to features of a method of independent claim 1 and, thus, is neither disclosed nor suggested by the Schulman reference for at least the same reasons indicated above with respect to claim 1. Therefore, independent claim 43, as amended, is believed to be allowable. The Patent Office has not made out a *prima facie* case of obviousness under 35 U.S.C. 103.

Because they depend from independent claim 43, dependent claims 44-48 are believed to be allowable for at least the same reasons that independent claim 43 is believed to be allowable.

New claims 51-55 recite features that are not found in the Schulman reference.

Conclusion:

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.


The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872.

If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

Date December 29, 2006

By 

FOLEY & LARDNER LLP
Customer Number: 23392
Telephone: (310) 975-7965
Facsimile: (310) 557-8475

Justin M. Sobaje
Attorney for Applicant
Registration No. 56,252